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RCA-49

DUAL-GRID POWER AMPLIFIER

Filament	Coated	
Voltage	2.0	d-c volts
Current	0.120	amp.
Maximum Overall Length		4-11/16"
Maximum Diameter		1-13/16"
Bulb		ST-14
Base		Medium 5-Pin

#2 GRID — #1 GRID

Pin 1-Filament+
Pin 2-Plate
Pin 3-Grid #1
Pin 4-Grid #2
Pin 5-Filament-

BOTTOM VIEW

CLASS B POWER AMPLIFIER

Grids #1 & #2 connected together at socket

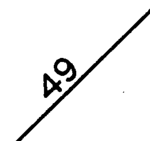
Plate Voltage		180 max.	volts
Peak Plate Current		50 max.	ma.
Typical Operation (2 tubes):			
Filament	2.0	2.0	volts
Plate	135	180	volts
Grid (#1 & #2 tied together)	0	0	volts
Zero-Sig. Plate Cur. (per tube)	1.3	2	ma.
Load Resistance (per tube)	2000	3000	ohms
Effective Load Resistance (plate to plate)	8000	12000	ohms
Power Output (2 tubes)	2.3	3.5	approx. watts

CLASS A AMPLIFIER

Grid #2 connected to plate at socket

Operating Conditions and Characteristics:		
Filament	2.0	volts
Plate	135 max.	volts
Grid (#1 only)	-20	volts
Amp. Fact.	4.7	
Plate Res.	4175	ohms
Mut. Cond.	1125	µmhos
Plate Cur.	6.0	ma.
Load Res.	11000 *	ohms
Power Output	0.170	approx. watts

* Approximately twice this value is recommended for load of this tube when used as driver for Class B stage.



Cunningham Radiotron

RCA-49

AVERAGE PLATE CHARACTERISTICS

CLASS B OPERATION

E_f = 2.0 VOLTS D.C.

CONTROL GRID VOLTS (E_{C1}) = 27, 24, 21, 18, 15, 12, 9, 6, 3, 0

PLATE VOLTS (E_b): 0, 40, 80, 120, 160, 200, 240, 280

D-C PLATE (I_b) OR D-C GRID (I_{C1}) MILLIAMPERES: 50, 40, 30, 20, 10, 0

OCT. 31, 1935

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92S-5283R1



RCA-49

AVERAGE PLATE CHARACTERISTICS

CLASS A OPERATION

E_f = 2.0 VOLTS D.C.

I_b E_b E_{C1}

CONTROL GRID VOLTS E_{C1} = 0, -3, -6, -9, -12, -15, -18, -21, -24, -27

LOAD RESISTANCE = 11,000 OHMS

PLATE VOLTS (E_b): 0, 40, 80, 120, 160, 200, 240, 280

PLATE MILLIAMPERES: 0, 2, 4, 6, 8, 10, 12, 14, 16